

IN THE CLAIMS:

1. (currently amended) A container for releasing a chemical additive in a liquid fuel composition comprising:

a fuel-impermeable casing defining a fuel-impermeable wall structure, a substantially hollow interior and at least one opening in the wall structure;

a fuel additive composition provided in the interior of said casing, said fuel additive composition comprising a chemical additive soluble in said a liquid fuel composition; and

at least one fuel-permeable element provided at or near substantially directly adjacent the at least one opening of the casing and structured to be effective to provide for release of a portion of the chemical additive into the liquid fuel composition when the liquid fuel composition is in contact with the casing, the element comprising at least two different components selected from the group consisting of (1) a porous member, (2) a semi-permeable member, and (3) an at least partially fuel-soluble seal, provided that each of the components initially extends substantially across the at least one opening.

2. (currently amended) The container of claim 1 wherein the casing is composed of comprises a material selected from the group consisting of metals, polymeric materials, combinations thereof and mixtures thereof.

3. (original) The container of claim 2 wherein the material is selected from the group consisting of metals, polyvinyl chloride, polyethylene, polypropylene, nylon, polyethylene vinyl acetate, polypropylene vinyl acetate, combinations thereof and

a substantially cylindrical-shaped casing.

5. (original) The container of claim 4 wherein the at least one opening comprises at least one open end of the cylindrical-shaped casing or at least one side opening in a sidewall of the cylindrical-shaped casing.

6. (original) The container of claim 1 wherein the casing is a substantially bowl-shaped casing.

7. (original) The container of claim 6 further comprising a cap member disposed across a top of the substantially bowl-shaped casing.

8. (original) The container of claim 6 wherein the at least one opening is located in a top of the substantially bowl-shaped casing, in a side of the substantially bowl-shaped casing or in a bottom of the substantially bowl-shaped casing.

9. (currently amended) The container of claim 1 wherein the at least one fuel-permeable element comprises ~~an~~ the at least partially dissolvable fuel soluble seal.

10. (currently amended) The container of claim 9 wherein the at least partially dissolvable fuel-soluble seal comprises a support structure structured to support the at least partially fuel soluble seal, the support structure being coated with a fuel soluble polymer.

12. (currently amended) The container of claim 1 wherein the at least one fuel-permeable element includes ~~a filter~~ the semi-permeable member.

13. (currently amended) The container of claim 1 wherein the at least one fuel-permeable element includes ~~a~~ the porous membrane member.

14. (currently amended) The container of claim 13 wherein the at least one fuel-permeable element further includes an at least one retention member effective in retaining the membrane porous member in a substantially fixed position relative to the casing.

15. (currently amended) The container of claim 13 wherein the porous membrane member is a microporous membrane having a pore size of between about 0.2 microns to about 100 microns.

16. (currently amended) The container of claim 13 wherein the porous membrane member comprises a material selected from the group consisting of metals, glasses, polymeric materials, combinations thereof and mixtures thereof.

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18. (currently amended) The container of claim 17 or 12 wherein the semi-permeable membrane comprises a material selected from the group consisting of metals, glasses, polymeric materials, papers, combinations thereof and mixtures thereof.

permeable elements.

20. (original) The container of claim 1 wherein the fuel additive composition is provided in a particulate form.

21. (original) The container of claim 1 wherein the fuel additive composition is present in the casing in a liquid form.

22. (original) The container of claim 1 wherein the chemical additive is selected from the group consisting of dispersants/detergents, antioxidants, anti-wear agents, corrosion inhibitors, demulsifiers, flow improvers, lubricating agents, microbiocides and mixtures thereof.

23. (original) The container of claim 1 wherein the at least one fuel-permeable element is at least partially coated with a coating polymeric material.

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26. (original) A method for releasing a chemical additive at a sustained rate into a fuel composition comprising placing the container of claim 1 in contact with the fuel composition.

27. (original) A method for releasing a chemical additive at a sustained rate into a fuel composition comprising placing the container of claim 4 in contact with the fuel composition.

container of claim 6 in contact with the fuel composition.

29. (original) A method for releasing a chemical additive at a sustained rate into a fuel composition comprising placing the container of claim 9 in contact with the fuel composition.

30. (original) A method for releasing a chemical additive at a sustained rate into a fuel composition comprising placing the container of claim 13 in contact with the fuel composition.

31. (currently amended) A method for releasing a chemical additive at a sustained rate into a fuel composition comprising placing the container of claim ~~17~~ 12 in contact with the fuel composition.

32. (currently amended) A seal assembly comprising:

a fuel-permeable membrane sized and adapted structured to be positioned in or near substantially directly adjacent an opening in a casing defining a hollow interior containing a fuel additive soluble in ~~the~~ a fuel composition, the membrane is adapted structured to be positioned so that substantially all of the additive leaving the hollow interior through the opening passes through the membrane, and

~~a~~ an at least partially fuel-soluble seal member sized and adapted structured to be positioned relative to the opening in the casing to prevent additive leaving the hollow interior through the opening when the seal member is intact.

33. (currently amended) The seal member of claim 32 wherein

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35. (original) The seal assembly of claim 32 wherein the seal member comprises a support structure and a fuel-soluble polymer.

36. (original) The seal assembly of claim 35 wherein the support structure includes at least one of a wire screen and a woven cloth.

37. (original) The seal assembly of claim 32 which further comprises at least one retention member sized and adapted to be positioned to be effective in retaining the membrane in a substantially fixed position relative to the casing.

38. (currently amended) A fuel permeable assembly comprising:
a fuel-permeable membrane sized and adapted structured to be positioned in or near substantially directly adjacent an opening in a casing defining a hollow interior containing a fuel additive soluble in the fuel composition, the membrane is adapted structured to be positioned so that substantially all of the additive leaving the hollow interior through the opening passes through the membrane, and

at least one retention member, other than the casing, sized and adapted structured to be positioned to be effective in retaining the membrane in a substantially fixed position relative to the casing.

39. (original) The assembly of claim 38 wherein the membrane comprises at least one of a porous membrane element and a semi-

the membrane comprises a microporous membrane element.

41. (new) A container for releasing a chemical additive in a liquid fuel composition comprising:

a casing defining a fuel-impermeable wall structure, a substantially hollow interior and at least one opening in the wall structure;

a fuel additive composition provided in the interior of said casing, said fuel additive composition comprising a chemical additive soluble in a liquid fuel;

a fuel-permeable element provided at or substantially directly adjacent the at least one opening of the casing and structured to be effective to provide for release of the chemical additive into the liquid fuel when the liquid fuel is in contact with the casing; and

an at least partially fuel-soluble seal positioned so that the seal initially extends substantially across the at least one opening.

42. (new) The container of claim 41 wherein the casing comprises a material selected from the group consisting of metals, polymeric materials, combinations thereof and mixtures thereof.

43. (new) The container of claim 41 wherein the casing is a substantially cylindrical-shaped casing or a substantially bowl-shaped casing.

44. (new) The container of claim 41 wherein the at least partially fuel soluble seal comprises a support structure

45. (new) The container of claim 44 wherein the support structure comprises a wire screen, a woven cloth or combinations thereof.

46. (new) The container of claim 41 wherein the fuel-permeable element includes a semi-permeable member.

47. (new) The container of claim 41 wherein the fuel-permeable element includes a porous member.

48. (new) A container for releasing a chemical additive in a liquid fuel comprising:

a casing defining a fuel-impermeable wall structure, a substantially hollow interior and at least one opening in the wall structure;

a fuel additive composition provided in the interior of said casing, the fuel additive composition comprising a chemical additive soluble in a liquid fuel; and

a fuel-permeable element provided at or substantially adjacent the at least one opening of the casing and structured to be effective to provide for release of the chemical additive into the liquid fuel when the liquid fuel is in contact with the casing, the element comprising a component including at least one of a porous member and a semi-permeable member, and at least one retention member, other than the casing, structured and positioned to maintain the component in a substantially fixed position relative to the casing.

49. (new) The container of claim 48 wherein the casing

50. (new) The container of claim 48 wherein the component includes a microporous membrane having a pore size of between about 0.2 microns to about 300 microns.

51. (new) The container of claim 48 wherein the component comprises a material selected from the group consisting of metals, glasses, polymeric materials, papers, combinations thereof and mixtures thereof.

52. (new) A container for releasing a chemical additive in a liquid fuel comprising:

a casing defining a fuel-impermeable outer wall structure, a substantially hollow interior and at least two spaced apart openings in the outer wall structure;

a fuel additive composition provided in the interior of said casing, the fuel additive composition comprising a chemical additive soluble in a liquid fuel; and

fuel-permeable elements provided at or substantially directly adjacent each of the at least two openings of the casing, each of the fuel-permeable elements being structured to be effective in controlling release of the chemical additive into the liquid fuel in contact with the casing.

53. (new) The container of claim 52 wherein the casing comprises a material selected from the group consisting of metals, polymeric materials, combinations thereof and mixtures thereof.

54. (new) The container of claim 52 wherein the casing is a substantially cylindrical-shaped casing or a substantially bowl

permeable elements include at least one component selected from the group consisting of (1) a porous member, (2) a semi-permeable member, and (3) an at least partially coolant-soluble seal.

56. (new) A method for releasing a chemical additive at a sustained rate into a fuel composition comprising placing the container of claim 41 in contact with the fuel composition.

57. (new) A method for releasing a chemical additive at a sustained rate into a fuel composition comprising placing the container of claim 48 in contact with the fuel composition.

58. (new) A method for releasing a chemical additive at a sustained rate into a fuel composition comprising placing the container of claim 52 in contact with the fuel composition.